### PATENT COOPERATION TREATY

INTERNATIONAL SEARCHING A	UTHORITY			
To: JEREMY J. CURCURI BROOKS KUSHMAN 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075		PCT  WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY		
	·			
•		Date of - 11	(PCT Rule 43bis.1)	
Applicant's or agent's file reference		Date of mailing (day/month/year)	18 DEC 2006	
CCCI0122PCT1	-	FOR FURTHER	ACTION See paragraph 2 below	
International application No.	International filing date	(day/month/year)		
PCT/US05/02627	31 January 2005 (31 01	2005	Priority date (day/month/year)	
International Patent Classification (IF	C) or both national classifica	tion and IPC	29 January 2004 (29.01.2004)	
IPC: <b>H04N</b> 7/18( 2007.01),7/17 USPC: 725/82,91,92,116	3( 2007.01)			
Applicant			· · · · · · · · · · · · · · · · · · ·	
WOUNDY, RICHARD M	•			
1. This opinion contains indications	relating to the following item	ıs:		
Box No. I Basis of the opinion				
Box No. II Priority				
Box No. III Non-establishment of opinion with regard to revolet invention				
and industrial applicability				
	and of unity of invention			
Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
Box No. VI Certain d	ocuments cited			
Box No. VII Certain d	efects in the international app	application		
		an approacion	•	
	the IPEA and the chosen IP	ept that this does r	e considered to be a written opinion of the not apply where the applicant chooses an International Bureau under Rule 66.1bis(b) red.	
mailing of Form PCT/ISA/220 or	pefore the expiration of 22 m	IMMENIC HATAFA tha	A, the applicant is invited to submit to the expiration of 3 months from the date of ty date, whichever expires later.	
For further options, see Form PCT/ISA/220.				
3. For further details, see notes to Form PCT/ISA/220.				
Name and mailing address of the ISA/	US Date of completion	on of this A	authorized officer	
Mail Stop PCT, Attn: ISA/US Commissioner for Patents	opinion	$\mathcal{A}$	30n P. Huynh	
P.O. Box 1450 Alexandria, Virginia 22313-1450	14 November 200	6 (14.11.2006)		
rm PCT/ISA/237 (cover sheet) (April (	2005	T	Telephone No. 571-272-7295	

# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/02627

ROX	No. I Basis of this opinion	_
		_
1. Wit	th regard to the language, this opinion has been established on the basis of:	
$\boxtimes$	the international application in the language in which it was filed	
اسيما	a translation of the international application into, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).	
2. Wit	th regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to t med invention, this opinion has been established on the basis of:	hε
a,	type of material	
	a sequence listing	
	table(s) related to the sequence listing	
b.		
υ.		
	on paper	
	in electronic form	
c.	time of filing/furnishing	
	contained in the international application as filed.	
	filed together with the international application in electronic form.	
	furnished subsequently to this Authority for the purposes of search.	-
3. []	In addition in the case that we are	
٠.	In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filled or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filled or does not go beyond the application as filed or does not go beyond the good that the filed or does not go beyond the good that	1
	the application as filed or does not go beyond the application as filed, as appropriate, were furnished.	ì
. Addit	tional comments:	
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- Down	/ICA/227/D- N. D. / / D. / D. / / D. / D. / / D. /	

#### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US05/02627

1. Statement	planations supporting such statement	
Novelty (N)	Claims 1-21 Claims NONE	YES
Inventive step (IS)	Claims NONE Claims 1-21	YES
Industrial applicability (IA)	Claims <u>1-21</u> Claims <u>NONE</u>	YES

#### 2. Citations and explanations:

Claims 1-21 lack an inventive step under PCT Article 33(3) as being obvious over Handler et al. (US 2001/0019559 A1) in view of Burns et al. (US 6,275,496).

Regarding claims 1, 8, 15, Handler discloses a method, a system including a plurality of headend facilities (ISP 1 headend, ISP 2 headend, ISP 3 headend), with multiple location consumer communication and content delivery system, the system including a central database (e.g. database server 704), the system including a distributed information technology architecture wherein a back office IT infrastructure is located at the central facility (e.g. maintenance workstation, operation support system database, etc. in the data center) and wherein each headend facility includes a headend IT infrastructure - see figures 5-11. Handler discloses the data center is responsible for managing the connectivity between the various ISPs headend and their particular end-user customer with policies such as level of access, billing capability, asset management capabilities, etc. (figures 12-8-14, paragraphs 0050-0054). Thus, a policy is provided to a headend IT infrastructure, the policy defines policy limits for transaction that normally require real time access to the central database. However, Handler doses not specifically disclose handling real time transaction with the headend, without real time access to the central database, in accordance with the policy limit.

Burns discloses a system comprises content server connected to multiple headend (regional independence service providers - col. 2, lines 3-13); the headend manages requests received from the subscribers, the policy manager defines administer rules that determine which documents or resources are cached in the cache memory. If the requested content is already cached at the headend, the content is retrieved and provided to the subscribers without real time access to the central database (content server), in accordance to the policy/rules that the documents/resources are cached at the headend - figures 2-6, col. 4, ines 30-45; col. 8, line 1-59; col. 10, line 11-col. 12, line 32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Handler to use the teaching as taught by Burns in order to eliminate latency problem (col. 4, lines 30-48).

Regarding claims 2-7, 9-14, 16-21, Handler further discloses handling non-real time transaction at least partially with the operation support system database, maintenance workstations, etc. in data center (figures 6-7), determining an availability of access to the central data base for real time transactions that fall outside of the policy limits (e.g. add new end user, create account, etc. - figure 11); determining an availability of access to the central database from headend facility (paragraphs 0072), the headend facility is for a cable television system (paragraph 0036, figure 3), central database is realized as a relational database, as an LDAP (paragraphs 0052, 0065, 0074). Burns further discloses headend handling real time transaction, without real time access to the central database, if the content are cached at the headend (figures 4-6).

Form PCT/ISA/237 (Box No. V) (April 2005)

#### PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTI	HORITY	MINION IK	CAIX
To: JEREMY J. CURCURI BROOKS KUSHMAN 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075		PCT  WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY	
			(PCT Rule 43bis.1)
	<u> </u>	Date of mailing (day/month/year)	18 DEC 2006
Applicant's or agent's file reference		FOR FURTHER	ACTION LO DE C ZUUU
CCCI0122PCT1			See paragraph 2 below
International application No.	International filing date	(day/month/year)	Priority date (day/month/year)
PCT/US05/02627 International Patent Classification (IDC)	31 January 2005 (31.01.	.2005)	29 January 2004 (29.01.2004)
International Patent Classification (IPC) IPC: H04N 7/18( 2007.01),7/173( 2	1	tion and IPC	
USPC: 725/82,91,92,116		•	
Applicant			·
WOUNDY, RICHARD M			
1. This opinion contains indications rela	ating to the following item	28:	
Box No. I Basis of the opinion			
Box No. II Priority			
Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability			
)			
Box No. V  Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
applicatinty	citations and explanation	s supporting such sta	atement
	de la dio macinational application		
Box No. VIII Certain obser	rvations on the internation	al application	
2. FURTHER ACTION		•	
	PEA and the chosen ip	ept that this does i	e considered to be a written opinion of the not apply where the applicant chooses an International Bureau under Rule 66.1bis(b) red.
If this opinion is, as provided above, IPEA a written reply together, when mailing of Form PCT/ISA/220 or before further options, see Form PCT/ISA	ore the expiration of 22 m		A, the applicant is invited to submit to the expiration of 3 months from the date of ty date, whichever expires later.
- 5. Addition options, see Form PC1/1S/	A. 220.	·	
3. For further details, see notes to Form l	PCT/ISA/220.		
Name and mailing address of the ISA/ US	Date of completion	n of this A	authorized officer
Mail Stop PCT, Attn: ISA/US Commissioner for Patents	opinion	$\mathcal{A}$	Son P. Huynh
P.O. Box 1450 Alexandria, Virginia 22313-1450	14 November 200	6 (14.11.2006)	
Facsimile No. (571) 273-3201			elephone No. 571-272-7295
Form PCT/ISA/237 (cover sheet) (April 2005	5)		

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/02627

Box No. I Basis of this opinion			<u> </u>
1. With regard to the language, this opini	On has been established on the Last	٥	
the international application is	n the longues is which it	of:	
=== application in	n the language in which it was fi	iled	
purposes of international search (	application into, which is (Rules 12.3(a) and 23.1(b)).	s the language of a transl	ation furnished for the
2. With regard to any nucleotide and/or claimed invention, this opinion has been	r amino acid sequence disclosed established on the basis of:	in the international appl	ication and necessary to the
a. type of material			
a sequence listing	·		
table(s) related to the seque	nce listing		
b. format of material			
on paper			
in electronic form			
in electronic form	•		
c. time of filing/furnishing			•
contained in the internation	al application as filed.		
	national application in electronic for		
furnished subsequently to th	is Authority for the purposes of sear	rch.	
	•		
3. In addition, in the case that many	Alban		
	than one version or copy of a sequentements that the information in the	Oliboochiose as allies 1	
the application as filed or does not	go beyond the application as filed,	as appropriate, were fun	uished.
4. Additional comments:			
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m PCT/ISA/237(Box No. I) (April 2005)	•		

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US05/02627

. Statement		
Novelty (N)	Claims 1-21	YES
	Claims NONE	NO
Inventive step (IS)	Claims NONE	YES
	Claims 1-21	NO
Industrial applicability (IA)	Claims 1-21	VEO
	Claims NONE	YES

#### 2. Citations and explanations:

Claims 1-21 lack an inventive step under PCT Article 33(3) as being obvious over Handler et al. (US 2001/0019559 A1) in view of Burns et al. (US 6,275,496).

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